

Chapter 3 – Food Sources and Protection

Foods can be placed in two general classes depending on their ability to cause foodborne diseases - potentially hazardous foods and non-potentially hazardous foods. It is very important to know what foods are potentially hazardous. It is essential that foods are obtained from approved sources and stored properly to prevent cross-contamination.

POTENTIALLY HAZARDOUS FOOD

A potentially hazardous food is any food **or ingredient** that will support the rapid growth of harmful bacteria.

Some examples are as follows:

- Any food of animal origin - All meats (red meat, poultry, fish, shellfish, crustaceans, etc.), eggs, milk and dairy products;
- Any food of plant origin that has been heat treated and has a history of foodborne disease - potatoes, squash, pumpkin, rice, refried beans, mushrooms, onions, tofu; any untreated food of plant origin with a history of foodborne disease - seed sprouts, cut melons, tightly wrapped produce such as mushrooms and coleslaw; and
- Synthetic foods (unless laboratory evidence proves otherwise) - artificial cream filling.

Exceptions to the above are as follows:

- Air-dried hard-boiled eggs with shells intact;
- Food with low water activity (0.85 or less) - jerky, powdered milk, hard cheeses, etc.;
- Foods with a pH of 4.6 or less - some commercially prepared dressings, pickled meats and vegetables;
- Unopened containers of food which have been processed to maintain commercial sterility, such as unopened pasteurized milk products; and
- Foods, both natural and synthetic, for which laboratory evidence demonstrates that growth of harmful bacteria will not occur.

FOOD SOURCES

Food safety starts when food supplies are received at the door of the food establishment. **Do not accept foods from unapproved sources or which are unsafe, adulterated or out of temperature.**

Give special attention to the following:

Wholesomeness Check. Check all incoming foods for damaged containers, leaks, off-odors, filth and other signs that suggest food may not be wholesome.

Packaged Foods. Generally, foods commercially packaged and properly labeled are from approved food processing establishments. Reputable establishments are regulated by federal or state agencies to ensure the safety of the product. **Do not receive or use packaged food without labels.** Salvaged packaged foods must be marked "Salvage."

Milk and Milk Products. Only pasteurized milk and milk products can be received and used. The only exception is the retail sale of packaged raw milk products to consumers only.

Eggs. Eggs and egg products must be from a regulated egg producing or processing establishment.

Do not accept or use cracked, checked or dirty eggs. Ungraded eggs can be sold at retail to the consumer only.

Shellfish. Shellfish must be obtained in containers bearing proper labeling with a certification number.

Meat. All meat and meat products must be from regulated meat processing establishments and must be inspected for wholesomeness (unless exempted by law).

Produce. Most produce from warehouses is from approved sources. Occasionally, produce from a local source is obtained. Care should be taken to ensure that produce from a local grower has not been mishandled or contaminated.

Other Foods. Crustaceans, wild mushrooms, wildlife and other foods not mentioned above must also be from approved sources.

Home-canned and Home-prepared Food. Foods canned or prepared in a private home or unregulated food establishment are not from approved sources. **Do not accept or use these foods.** Such foods may present a risk to public health.

RECEIVING TEMPERATURE

To ensure food safety, **frozen foods need to be received frozen with no signs of previous thawing. Food Safety also means that potentially hazardous foods need to be received at 41°F or below or 135°F or above.**

PROTECTION FROM CROSS-CONTAMINATION

All food, while being stored, prepared, displayed, served or sold in food establishments or transported need to be protected against cross-contamination.

Cross-contamination is the process through which raw foods can contact other raw foods of a different species or foods that are already cooked. Examples of cross-contamination include the following:

- Raw hamburger being thawed on the same plate with raw chicken.
- Raw chicken being stored over a salad, allowing the potential for the raw chicken juices to drip into the salad.
- Raw beef being trimmed on a cutting board, then using the same cutting board to slice tomatoes without washing, rinsing, and sanitizing the cutting board.
- Placing a raw steak on the grill and then touching other foods without washing your hands first.

The following provides important information and requirements as applicable to critical items:

Separation of Animal Species. Raw meat of all types of animal products (beef, fish, lamb, pork, poultry, etc.) must be physically separated during transportation, storage and processing. This is required because different meats have different bacteria and parasite types and numbers. Normally, beef and lamb have the least and poultry has the most. This requirement is particularly important considering different preparation methods and cooking temperatures for the different products. Also, where custom meat processing is done, these meats must be stored and processed separately from inspected meats.

Separation of Ready-To-Eat Foods. Ready-to-eat food (including cooked food) must be physically separated from unwashed produce and uncooked food products during storage, preparation, holding, transportation and/or service. Physical separation can be vertical with ready-to-eat food located above unwashed produce and uncooked food products, but not below.

Separate Storage Areas for Unusable Foods. Separate storage areas must be provided for spoiled, returned, damaged or unwholesome food in order to prevent cross-contamination.

Ice Protection. Ice intended for human consumption cannot be used for other purposes prior to consumption. One exception is food ice for cooling tubes.

Re-serving Food Prohibited. Food, once served to the consumer, must not be served again (some exceptions, such as crackers sealed in plastic, individual ketchup packets, etc).

Preparation of Ready-To-Eat Foods. Ready-to-eat foods must not be prepared in areas where raw meats are processed, except by scheduling and proper cleaning between operations.

Avoiding Unsafe Additives. Foods must be protected against contamination resulting from the addition of unsafe or unapproved food, color additives, steam, gases and air.

Avoid Egg Pooling and Contamination. Fresh eggs should not be cracked in quantity and pooled. Use pasteurized eggs. Do not use raw eggs in ready-to-eat food products.

Protection of Bulk Foods. Prepared food, once removed from the original package or container, regardless of the amount, must not be returned. This also applies to consumer self-service displays, salad bars, etc.

Avoiding Contamination from Gloves. When using gloves, always handle ready-to-eat products, such as salad ingredients, **before** non-ready-to-eat products, such as raw meat. Then handle, if necessary, raw foods in descending order of potential contamination as specified in the *Idaho Food Code*. Never reverse the food handling procedure. **Gloves present *NO* special protection against cross-contamination.**

CROSS-CONTAMINATION EXAMPLES

Some classic examples of potential cross-contamination in Idaho food establishments are as follows:

- During the process of cutting chickens on a meat band saw, the operator cut a bologna to order on the same equipment.
- A food handler placed a cooked turkey for carving on the unclean surface where the turkey was previously placed during preparation when raw.
- Blood from thawing liver dripping into a container of strawberry gelatin salad which was stored below.
- Spoiled dairy products for salesperson pickup placed over ready-to-eat foods in a walk-in refrigeration unit.
- Ready-to-eat crab salad located in refrigerated display case next to raw sausage.
- A school kitchen worker used the same spoon to stir food being prepared for cooking and then without cleaning the spoon used it to stir ready-to-eat food being prepared for the serving line.

SUMMARY

- Potentially hazardous foods are foods or ingredients that will support rapid growth of harmful bacteria that cause foodborne disease.
- Many foods used by food establishments are potentially hazardous.
- All foods must be obtained from approved sources. Home-canned and home-prepared foods are not approved.
- All incoming foods should be checked for wholesomeness.
- Frozen foods must be received frozen and potentially hazardous foods received at 41°F or below or 135°F or above.
- All foods, while being stored, prepared, displayed, served or sold in food establishments or transported need to be protected against cross-contamination.
- Cross-contamination occurs when raw potentially hazardous foods or soiled or adulterated foods contact or drip on other foods.
- Gloves present no special protection against cross-contamination.

Reference: *Idaho Food Code*, Chapter 3